

What IS CLAIMED IS:

1. A torque measuring apparatus comprising:

a rotor having a hollow body portion formed between a drive-side flange portion and a load-side flange portion;

5 light emitting elements disposed on a periphery of the rotor, for emitting optical signals based on an output from a torque detection unit arranged on a hollow portion of the hollow body portion;

a transparent plate attached to a chassis disposed
10 outside the rotor, for allowing the optical signals to pass therethrough; and

a signal receiving unit attached to the chassis, for receiving the optical signals via the transparent plate, wherein the transparent plate is detachable from the chassis.

15 2. The torque measuring apparatus according to claim 1, further comprising a slide mechanism for sliding the transparent plate by manual operation.

3. The torque measuring apparatus according to claim 1, further comprising a motor driven slide mechanism for sliding
20 the transparent plate by operation of an operating switch.

4. The torque measuring apparatus according to claim 3, wherein the transparent plate is caused to slide by means of the motor driven slide mechanism when contamination is detected on the transparent plate.